W.S. Fishery Leaflet
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GRADUATE EDUCATIONAL GRANTS

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academic year 1968-69

UNITED STATES DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
BUREAU OF COMMERCIAL FISHERIES
Washington, D. C. 20240

Fishery Leaflet 604
September 1967

UNITED STATES DEPARTMENT OF THE INTERIOR
Stewart L. Udall, *Secretary*
David S. Black, *Under Secretary*
Stanley A. Cain, *Assistant Secretary for Fish and Wildlife and Parks*
FISH AND WILDLIFE SERVICE, Clarence F. Pautzke, *Commissioner*
BUREAU OF COMMERCIAL FISHERIES, H. E. Crowther, *Director*

R/V Miller Freeman, the Bureau of Commercial Fisheries' new fishery-oceanography research vessel for the North Pacific and Bering Sea. Its home port is Seattle, Wash.

Cover: Isaacs-Kidd midwater trawl fitted with plankton mesh, used by Marine Research Committee biologist in studies of catching efficiency for young stages of pelagic fishes. (Courtesy Eva Ewing.)

GRADUATE EDUCATIONAL GRANTS

academic year 1968-69

The Bureau of Commercial Fisheries, U.S. Fish and Wildlife Service, U.S. Department of the Interior, invites applications from colleges and universities for Graduate Educational Grants to be awarded for the academic year 1968-69.

PURPOSE

The grant program was developed to increase the number of high-caliber scientists trained for research in fisheries or in other fields relevant to fisheries. It is a training program designed to help graduate students make rapid progress toward attainment of the doctoral degree.

FIELDS OF STUDY

Basic and applied studies in a variety of disciplines are appropriate to the purpose of the grants. The following subjects are the preferred disciplines to be considered for support. Other subjects will receive consideration; however, if their relevance to fishery science is made clear in the application.

- Fishery Biology
- Marine Biology and Ecology
- Taxonomy (especially of marine invertebrates)
- Algology
- Pathology
- Bacteriology or Microbiology (relating to either basic biology or technology)
- Technology of Fishery Products (especially biochemistry)
- Fishery Economics
- Biological Oceanography
- Chemical Oceanography
- Physical Oceanography
- Limnology
- Ocean Engineering (fishing gear and equipment, quantitative sampling devices, environmental measuring devices, new techniques for locating and catching fish, etc.)

STIPEND AND DURATION OF GRANT

Grants will include:

(1) $3,000 cost-of-living allowance for the student
(2) $1,000 additional cost-of-living allowance for married students with one or more children
(3) Tuition and fees
(4) $500 annual administrative allowance to the institution for each student

Grants will be awarded to cover 2 years of study on a full-time basis, 12 months per year. Certification of satisfactory progress is required at the end of the first year of study.

OBLIGATIONS OF GRANT TENURE

Each student supported by a Bureau of Commercial Fisheries Graduate Educational Grant will be required to work full time on his degree program on a 12-month basis, including such teaching and field work as the institution believes to be necessary for his academic progress. Such students, therefore, may be permitted to engage in a limited amount of teaching without having to obtain Bureau approval. A student may not receive additional remuneration from another fellowship, assistantship, scholarship, or similar award or Federal grant or contract during his tenure. If the institution believes it will be beneficial to his academic progress, and so certifies in advance, a student may take other employment during the summer; however, the annual 12-month stipend will be reduced on a pro rata basis for each month of approved summer employment. If the institution has no formal summer session, the student must make special arrangements for supervised study or research at his institution or other appropriate institution. If extended travel is contemplated for examining material in museums or for other purposes, the Bureau should be consulted in advance. Once accepted, a student may enter on tenure of his grant any time after June 1, 1968, but must begin no later than the beginning of the 1968-69 academic year. After an award is made a major change in course of study or tenure requires prior approval of the Bureau of Commercial Fisheries.

WHO MAY APPLY

Applications will be considered only from institutions of higher learning in the United States that offer a full-time curriculum leading to the doctorate. Application should be made by an authorized officer of the institution. Students should not apply to the Bureau. They will be selected by their institutions. Selection must be made without discrimination

Serologists of the Biological Laboratory, Boothbay Harbor, Maine, testing the blood of herring for identification of racial differences.

as to race, creed, color, sex, or national origin. The student must be a U.S. citizen or owe allegiance to the United States. He or she must be working toward a doctorate.

WHERE TO APPLY

Applications for grants should be addressed to the Director, Bureau of Commercial Fisheries, U.S. Fish and Wildlife Service, U.S. Department of the Interior, Washington, D.C. 20240. Copies of terms and conditions to be included in a grant are available upon request.

WHEN TO APPLY

The final date for submission of applications will be December 1, 1967. Applications postmarked after midnight will not be considered.

HOW TO APPLY

The following information is required for each application. It will be used to judge the kind of training offered by the faculty or department.

1. Name of institution
2. Name of department

3. Address
4. Field of study and brief description of doctoral study program. (See sample application.)
5. If the student(s) and his particular subject for investigation are known, include a brief description of that subject.
6. Name, specialty, and degrees of faculty member or members who would supervise the incumbent of the grant.
7. Other faculty members in the department, their degrees, and their fields of specialty.
8. Estimated tuition and fees. (Total for the academic year of 12 months including summer session.)
9. Numbers of graduate students currently in residence in the department making application and the degrees toward which they are working.
10. Numbers of doctoral degrees conferred in the past 5 years by the department making application, the major field of study, and the title of thesis for each.

A sample application is attached for your guidance. There are no printed application forms.

COMPLIANCE WITH CIVIL RIGHTS ACT OF 1964

Institutions receiving awards will be required to comply with Title VI of the Civil Rights Act of 1964. The Department of the Interior has delegated to the Department of Health, Education and Welfare the responsibility for enforcing the provisions of that act as they may apply to grants by the Department of the Interior to colleges, universities and other educational institutions. Accordingly, institutions which are awarded Graduate Educational Grants must file statements of assurance, compliance reports, etc., in accordance with regulations of the Department of Health, Education and Welfare. The filing of similar material with the Bureau of Commercial Fisheries will NOT be required.

NUMBER OF APPLICATIONS

Separate requests must be submitted for grants in each discipline. For example, if an institution requests support for one student in Fishery Biology and one student in Technology of Fishery Products, two separate applications must be furnished. Eight copies of each application are needed; six of them are for the use of the reviewing panel. Only one set of supporting data, such as curriculum bulletins, need be submitted for each department making application. Since the number of possible awards is limited and the number of qualified institutions is great, it is suggested that each department limit its request to one grant.

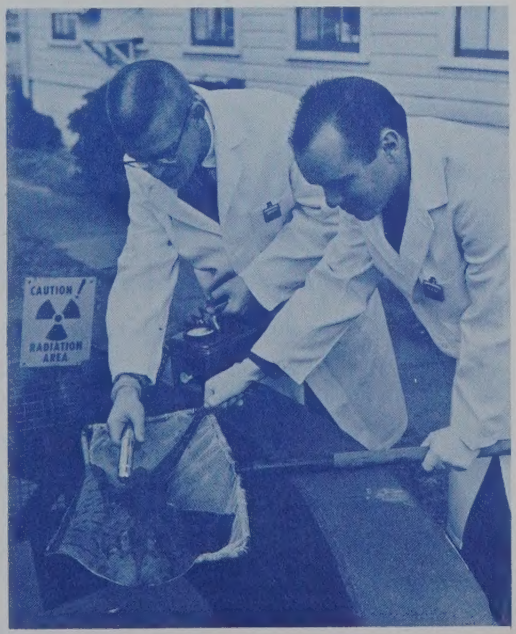
SELECTION AND AWARDS

Final selections will be made in January 1968. Announcement of awards is scheduled for March 1, 1968.

The awards will require that the recipient institutions furnish to the Bureau of Commercial Fisheries, not later than June 1, 1968, the following information regarding each student selected to receive support under the grant.

Name and mailing address
Date and place of birth
Undergraduate institution
Undergraduate major
Degrees received and dates
List of publications
Summary of post-graduate education, if any, with name of institution, subject and credit hours obtained
Number of years of total graduate study currently being completed
Outline of proposed course of study, including subject of dissertation, if selected
Marital status of student, and if married, number of children
Statement of tuition and fees for first year of grant
Commencing date for grant

Failure to submit the above information by June 1, 1968, will result in cancellation of the grant.



Scanning a skate for radioactivity after exposing it in water containing low levels of activity at Beaufort, N.C.

SAMPLE

Marine Ecology
Field

APPLICATION FOR BUREAU OF COMMERCIAL FISHERIES
GRADUATE EDUCATIONAL GRANTS, ACADEMIC YEAR 1968-69

1. Name of Institution: Spencer F. Baird University

2. Name of Department: Department of Zoology

3. Address: Linton Hall, Washington, D.C., 20360

4. Name of field of study and brief description of doctoral study program: Marine Ecology.

The student pursuing a Ph. D. in Zoology with emphasis on marine ecology is required to take a rounded selection of advanced biology courses and, in addition, a minimum of the following: oceanography (2 semesters), marine ecology (1 semester), systematics of marine invertebrates (1 semester). Also required are a reading knowledge of two relevant foreign languages and a dissertation based on original research. Ability in English composition must be demonstrated. Minimum prerequisites are college physics, calculus, organic and inorganic chemistry, and courses in biology equivalent to a major in that field.

5. Name of student and particular field: One of the following students would be the recipient of the grant:

Thomas Kodd, whose research is an experimental study of factors influencing the growth and development of three species of tropical Atlantic copepods in laboratory culture.

Maureen Vitas, whose interest is in the ecology of Asteroidea. Tentatively, her thesis research will be on the feeding behavior and prey preferences of New England Solasteridae.

6. Name, specialty, and degrees of faculty member who will supervise incumbent of the grant:

L. Aggasiz Bigelow, Ph. D. Marine ecology; comparative anatomy of fishes

7. Other faculty members in the department, their degrees, and their fields of specialty:

G. Goode Bean, Ph. D.	Oceanic ichthyology
Mendel Morgan, Ph. D.	Genetics

8. Estimated tuition and fees: $2,000 for 12-month period including summer session.

9. Number of graduate students currently in residence in the department making application and the degrees toward which they are working:

12 students; 5 working toward Ph. D. and 7 toward M.S.

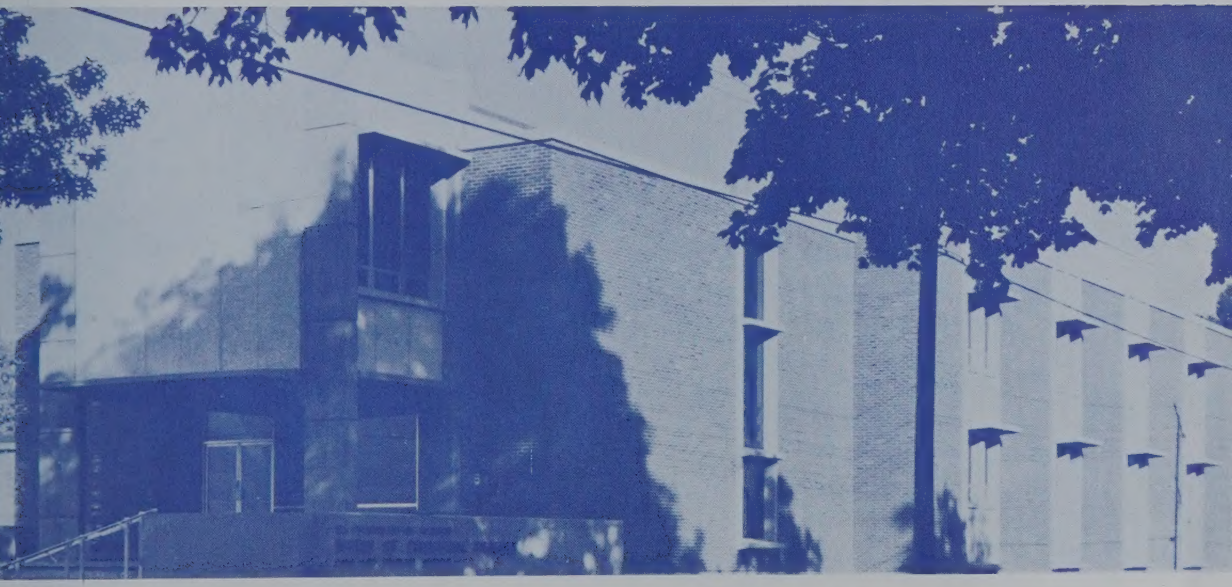
10. Number of doctoral degrees conferred in the past 5 years by the department making application, the major field of study, and the title of thesis for each: 3

Fisheries: High-frequency echo-ranging studies of yellow perch migrations and school characteristics. Jonathan B. Jones, 1964.

Taxonomy: Western Atlantic scorpion fishes of the genus Scorpaena including descriptions of 3 new species from South American. Albert Evans, 1962.

A study of the genus Enoploteuthis (Cephalopoda: Oegopsida) in the Atlantic Ocean with a redescription of the type species, E. leptura (Leach, 1817). Frank E. Clyde, 1965.

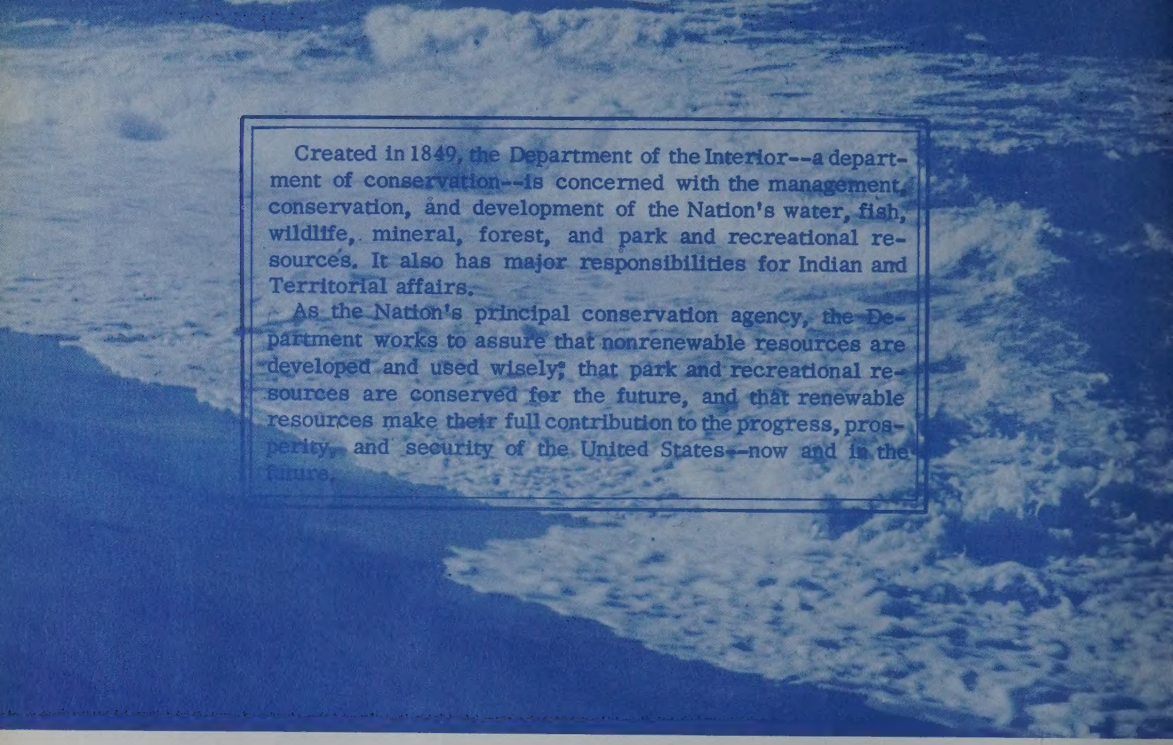
Research geneticist and fishery biologist (right), of the Bureau's Genetics Program at the Biological Laboratory, Milford, Conn., examining oysters prior to the preparation of tissue for cytological study. They seek to determine the basic aspects of the genetics of oysters as a basis for selective breeding. The ultimate purpose is to develop disease resistant stocks with faster growth and improved food value.



The Bureau's new shellfish research laboratory at Milford, Conn.

MS. #1707

GPO 927-925



Created in 1849, the Department of the Interior--a department of conservation--is concerned with the management, conservation, and development of the Nation's water, fish, wildlife, mineral, forest, and park and recreational resources. It also has major responsibilities for Indian and Territorial affairs.

As the Nation's principal conservation agency, the Department works to assure that nonrenewable resources are developed and used wisely; that park and recreational resources are conserved for the future, and that renewable resources make their full contribution to the progress, prosperity, and security of the United States--now and in the future.

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
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WASHINGTON, D.C. 20240

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